Attorney Docket No.: Q97512

U.S. Application No.: 10/594,840

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

(original): A patterned substrate having a conductor pattern obtained by: 1.

forming layer (B) comprising an organic polysilane on conductive substrate (A);

irradiating a certain region of the layer (B) with a radiation to oxidize the organic

polysilane constituting the layer (B) in the certain region; and then

applying a solution containing a conducting polymer, water, and/or a hydrophilic

solvent at least on the certain region of the layer (B) to form layer (C) comprising the conducting

polymer, while impregnating the layer (B) in the certain region with the conducting polymer to

electrically connect the layer (C) and the substrate (A).

2. (original): The patterned substrate according to Claim 1, wherein the irradiation

is performed through a shadow mask pattern.

(currently amended): The patterned substrate according to Claim 1-or 2, wherein 3.

the irradiation is performed in an atmosphere having a humidity of 30% or more.

(currently amended): The patterned substrate according to any one of Claims 1 to 4.

3Claim 1, characterized in that a surface of the layer (B) excluding the irradiated region is

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oxidized after the organic polysilane constituting the layer (B) in the irradiated region is

oxidized.

5. (currently amended): The patterned substrate according to any one of Claims 1 to

4Claim 4, wherein the surface of the irradiated region of the layer (B) and the solution containing

the conducting polymer, water, and/or a hydrophilic solvent are allowed to contact with each

other and then are kept as they are for 15 seconds or more, before applying the solution

containing the conducting polymer, water, and/or the hydrophilic solvent on said surface.

6. (currently amended): The patterned substrate according to any one of Claims 1 to

5Claim 1, wherein after impregnating the layer (B) in the irradiated region with the conducting

polymer, the layer (B) is irradiated with a radiation to oxidize the organic polysilane constituting

the layer (B) excluding the irradiated region.

7. (original): A patterned substrate characterized by having, on conductive substrate

(A), layer (B) comprising an irradiated region which contains an oxide of an organic polysilane

produced by irradiating the organic polysilane with a radiation and a conducting polymer and a

non-irradiated region which contains the organic polysilane, and having layer (C) comprising the

conducting polymer at least on the irradiated region of the layer (B).

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8. (currently amended): The patterned substrate according to any one of Claims 1 to 7<u>Claim 1</u>, wherein the conducting polymer includes polythiophene or a derivative thereof, and/or

polyaniline or a derivative thereof.

9. (currently amended): An organic electroluminescence device, characterized by

using the patterned substrate according to any one of Claims 1 to 8Claim 1.

10. (currently amended): An organic transistor, characterized by using the patterned

substrate according to any one of Claims 1 to 8Claim 1.

11. (currently amended): An organic photo-sensor, characterized by using the

patterned substrate according to any one of Claims 1 to 8Claim 1.

12. (currently amended): An organic solar cell, characterized by using the patterned

substrate according to any one of Claims 1 to 8Claim 1.

13. (currently amended): An optical-optical conversion device, characterized by

using the patterned substrate according to any one of Claims 1 to 8Claim 1.

14. (original): A method for producing a patterned substrate having a conductor

pattern, comprising:

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forming layer (B) comprising an organic polysilane on conductive substrate (A);

irradiating a certain region of the layer (B) with a radiation to oxidize the organic

polysilane constituting the layer (B) in the certain region; and then

applying a solution containing a conducting polymer, water, and/or a hydrophilic

solvent at least on the certain region of the layer (B) to form layer (C) comprising the conducting

polymer, while impregnating the layer (B) in the certain region with the conducting polymer to

electrically connect the layer (C) and the substrate (A) to fabricate the conductor pattern.

15. (original): The method for production according to Claim 14, wherein a surface

of the layer (B) excluding the irradiated region is made hydrophilic after the organic polysilane

constituting the layer (B) of the irradiated region is oxidized.

(currently amended): The method for production according to Claim 14-or 15, 16.

characterized in that the organic polysilane constituting the layer (B) excluding the irradiated

region is oxidized by being irradiated with a radiation, after the organic polysilane constituting

the layer (B) in the irradiated region is oxidized and then the layer (B) in the irradiated region is

impregnated with the conducting polymer.